



## F A X C O V E R

**Date** Friday, October 10, 2003 **Number of pages (including cover):** 3

**To** Examiner Ly

**Company** U.S. Patent and Trademark Office  
Art Unit 2683  
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**From** Daniel P. McLoughlin

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**Our File #** S1022.80393US00

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Applicant's representative requested that Examiner Ly consider amendments to claims 1, 9 and 19 that clarify the distinctions between these claims and the system taught in Burdick. Examiner Ly requested that Applicant submit such proposed amendments to him by fax. Accordingly, Applicant proposes amending claim 1 as follows:

1. (Amended) An electromagnetic transponder including a parallel oscillating circuit adapted to being excited by a series oscillating circuit of a read/write terminal when the electromagnetic transponder enters the field of the read/write terminal, wherein components of the parallel oscillating circuit of the transponder are sized based on a predefined value so that a coupling coefficient between respective oscillating circuits of the electromagnetic terminal and of the read/write transponder rapidly decreases when a distance separating the electromagnetic transponder from the read/write terminal becomes greater than [a] the predetermined value.

Applicant believes that claim 1 so amended would patentably distinguish over Burdick. As discussed above, the signal strength between the transmitting and receiving antennas of Burdick falls off rapidly after any predefined distance between the transmitting and receiving antennas, including between the 1-3 meter operating range of the system. However, the transmitting and receiving antennas are not sized based on any such predefined distance. As disclosed in Burdick (col. 6, lines 12-15), the signal strength falls off rapidly merely because the transmitting and receiving antennas are inductively coupled, not because the transmitting and receiving antennas are sized based on any predefined distance.

Applicant respectfully requests that Examiner consider the above amendment and remarks, and contact Applicant's representative, Daniel P. McLoughlin, at his earliest convenience to discuss. Should the Examiner consider such amendment as placing claim 1 in condition for allowance, Applicant would make similar amendments to independent claims 9 and 19 that distinguish these claims over Burdick.

We look forward to hearing from you.

Yours truly,

Daniel P. McLoughlin

See Burdick Colm 39

lines 34-38

## UNOFFICIAL INFORMAL COMMUNICATION

## VIA Facsimile Transmission

October 10, 2003

Examiner Nghi H. Ly  
Art Unit 2683  
United States Patent and Trademark Office  
Washington, D.C. 20231

Re: U.S. Patent Application Serial No. 09/515,430  
Confirmation No. 3359  
Titled: "Sizing of an Electromagnetic Transponder System for an  
Operation in Extreme Proximity"  
Filed: July 13, 2000  
Attorney Docket No.: S1022.80393US

Dear Examiner Ly:

We appreciate your courtesy in conducting two telephone interviews with Applicant's representative, Daniel P. McLoughlin, on October 2, 2003, and for providing the opportunity to propose claim amendments in response to the most recent Office Action.

During the first telephone conversation, Applicant explained to Examiner Ly that the 1-3 meter distance disclosed in Burdick is not a predefined distance as recited in claims 1, 9 and 19, but merely describes a range of operation of the system disclosed in Burdick. Further, in Burdick, the signal strength falls off in accordance with  $1/r^6$ , as described in column 7 of Burdick. With respect to claim 14, Applicant explained that the abstract for Japanese patent Okada does not teach a stray capacitance of an inductance acting as a capacitive element of an oscillating circuit as recited in claim 14. In contrast, Okada teaches a separate inductance and capacitance of a switching element.

Examiner Ly explained that he would need to re-consider the Burdick and Okada references in light of Applicant's remarks, and then contact Applicant's representative.

During the second telephone interview, Examiner Ly agreed that claim 14 distinguishes over Okada, but re-asserted his contention that Burdick anticipates claims 1, 9 and 19. Examiner Ly explained that Burdick anticipates these claims because the "predefined value" recited in claim 1 can be read on any value between the 1-3 meters of operation of the system disclosed by Burdick. In other words, Examiner Ly contends that, because the signal strength rapidly decreases as a function of distance ( $1/r^6$ ) between the transmitter and transponder, it necessarily rapidly decreases after any predefined value of distance, including within the 1-3 meters of operation disclosed in Burdick.